



SAN BERNARDINO COUNTY STORMWATER PROGRAM

A Consortium of Local Agencies
December 18, 2000

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Mark E. Smythe, Chief
Storm Water Unit
California Regional Water Quality Control Board
Santa Ana Region
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Riverside, California 92501-3348

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RE: Responses to Comments on the County of San Bernardino - Santa Ana Basin
Area Report of Waste Discharge – Application for Renewal of the Municipal
NPDES Stormwater Permit (Order No. 96-32, NPDES No. CAS618036)

Dear Mr. Smythe:

This letter contains responses to the comments, dated September 29, 2000, from the California Regional Water Quality Control Board, Santa Ana Region (Regional Board). The Regional Board had provided its comments to the Report of Waste Discharge (ROWD), County of San Bernardino - Santa Ana Basin Area, that was submitted on September 1, 2000. The following paragraphs included clarifications to the ROWD Sections listed in the September 29, 2000 comment letter.

1. **Comment:** *The implementation schedules at the end of each section require a legend, which describes the various timelines in the column headers and the significance of the shading and symbols within the body of the chart.*

Response: A legend will be included in the timeline charts to provide definitions of the shading and symbols.

2. **Comment:** *Section 1.4.4 states that for municipal construction projects, Storm Water Pollution Prevention Plans (SWPPP) would be prepared and implemented. However, in the discussion related to industrial activities conducted by municipalities, no mention is made regarding implementation of Best Management Practices (BMP) or preparation of a SWPPP. Facility and activity specific plans, such as SWPPPs, must be prepared, reviewed, and implemented to ensure that pollutant loading from municipal activities is reduced to the "Maximum Extent Practicable (MEP)" and to provide municipal employees with the guidance necessary to properly conduct day-to-day activities, as well to respond to emergencies, such as hazardous spills.*

Response: (Proposed text underlined) Section 1.4.4, Page 1-12, second paragraph:

Industrial activities that would otherwise require coverage under the General Industrial Permit will be conducted in compliance with the requirements of the area-wide NPDES permit and this ROWD. This includes preparation and

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implementation of a site-specific storm water pollution control plan including incorporation of applicable Best Management Practices (BMPs) as described in Section 5.4.2 of this ROWD. The permittees will not be required to submit a NOI and fee to the SWRCB. However, each permittee will prepare annual inventories of industrial activities and submit these inventories to the principal permittee for inclusion in the annual reports.

(Proposed Text underlined) Section 1.7, Page 1-15, 4th bullet:

(1-8) Industrial activities that would otherwise require coverage under the General Industrial Permit will be conducted in compliance with the requirements of the area-wide permit and this ROWD. This includes preparation and implementation of a site-specific storm water pollution control plan including incorporation of applicable Best Management Practices (BMPs) as described in Section 5.4.2 of this ROWD. Each permittee commits to preparing annual inventories of industrial activities and submitting these inventories to the principal permittee for inclusion in the annual reports.

3. **Comment:** *Section 4.4.2 states that, “Enforcement of the State Construction Permit will be the responsibility of the Regional Board”. While the Regional Board may be the primary agency responsible for the enforcement of the State Construction Permit (General Permit), municipalities are required to control discharge of pollutants, including sediment, exiting their storm drain systems. When municipal inspectors, from any department, are visiting a construction site and witness conditions or practices that do not meet the municipality’s erosion/sediment control ordinance, the municipality should be capable of taking necessary enforcement action to enforce its ordinance. While notification of Regional Board staff regarding noted violations is appropriate and may result in Regional Board enforcement action, that does not alleviate the responsibility of municipalities to regulate discharges or potential discharges of pollutants to their storm drain system.*

Response: (Proposed text is underlined) Section 4.4.2, Page 4-7, add a second bullet:

- Enforcement of violations of each permittee’s codes and ordinances at construction sites is the responsibility of each permittee. The permittees will take appropriate actions at construction sites when inspections indicate that local codes and ordinances are being violated. Specific enforcement actions will be in accordance with local enforcement policies and procedures, and could range from verbal notification to take corrective action, to pulling of permits, to other legally available remedies available to the municipality. When violations are noted, the permittee will schedule re-inspections at

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appropriate intervals to determine that appropriate progress is being made to correct the conditions of non-compliance.

4. **Comment:** *Performance Commitment 4-5 states that “Each permittee will notify the RWQCB of any General Construction Permit violations noted during the permittees site inspection activities for other local permits.” As stated above, notification of Regional Board staff is appropriate but does not alleviate municipalities of the responsibility to regulate to MEP, discharges or potential discharges of pollutants to their storm drain system.*

Response: (Proposed text is underlined) Section 4.5, Page 4-10, add new between 4-3 and 4-4 and renumber remaining bullets:

- Each permittee will continue to enforce local codes and ordinances applicable to construction sites. The permittees will take appropriate actions at construction sites when inspections indicate that local codes and ordinances are being violated. The permittees will schedule and conduct follow up inspections at appropriate intervals to determine that appropriate progress is being made to correct the conditions of non-compliance.
5. **Comment:** *Section 5.5.4 proposes that storm drain facilities will be cleaned when they are at least 40% full. While a storm drain at 60% capacity may continue to function properly in the transport of storm water from a hydraulic aspect, the extended storage of debris will likely result in the lowering of water quality in discharges from that system. Debris, including sediment, can result in discharges with increased dissolved metal concentrations, decreased dissolved oxygen levels, increase biological oxygen demand levels, increased turbidity, increased suspended solids, and floatable trash. While it is understood that annual cleaning of 100% of all municipal storm drain facilities, including catch basins, is a desirable but not an achievable goal, additional requirements regarding an annual commitment are needed. Under the proposed plan, if all of a municipality’s storm drain systems were between 30 and 40% full, no cleaning would be required for that year. If a sufficiently strong storm were to then occur, all debris would then be transported to local receiving waters. Therefore, there must a commitment to a minimum percentage of systems to be cleaned each year, included in the plan.*

Response: (Proposed text is underlined) Section 5.4.4, Page 5-5

- 1) The sediment/debris storage volume is 25 percent or more full.
- 2) There is evidence of illegal discharge.
- 3) Accumulated sediment or debris impairs the hydraulic function of the facility.

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(Proposed text is underlined) section 5.5, Page 5-9

- (5-10) Each permittee will clean those facilities where the inspection reveals one or more of the following conditions:
 - 1) The sediment/debris storage volume is 25 percent or more full.
 - 2) There is evidence of illegal discharge.
 - 3) Accumulated sediment or debris impairs the hydraulic function of the facility.

6. **Comment:** *Performance Commitment 5-17 addresses street sweeping and sets a goal of at least annual sweeping of 100% of the streets and a commitment of at least annual sweeping of 75% of the streets. It is clear that a single commitment of goal cannot apply to all streets within the County. The commitments and goals should be grouped into several classifications based on street activity, adjacent land uses, proximity of storm drain catch basin inlets, and proximity to ultimate receiving waters.*

Response: (Proposed text is underlined) Section 5.5, Page 5-10, replace bullet (5-17) with the following:

- (5-17) The co-permittees will sweep streets/roads in residential zones at least twice each permit year, with at least one sweeping during the pre-rainy season months of September-October. The co-permittees will sweep streets/roads in commercial, industrial, and institutional zones, and along designated truck routes, at least once each quarter of each permit year. The goal is to sweep 100% of streets/roads in accordance with these schedules, with a performance criteria of 80%. Street/road sweeping applies to streets/roads where there is sufficient curb and gutter to justify street/road sweeping.

7. **Comments:** *In Section 9, Monitoring, the permittees have recommended substantial changes to the established monitoring program. It is our understanding that these changes were proposed, in part, due to the anticipated TMDL requirements, the Section 13267 request by Regional Board staff for an investigation of sources of pathogens found in the Santa Ana River, and the results of past monitoring. While Regional Board staff understand that monitoring programs must be dynamic and change as new information is gathered and analyzed and as new priorities arise, it must be understood by the permittees that as additional studies are conducted within the county, additional funding will likely be required. That is, the funds necessary to refine loading estimates in a TMDL cannot entirely be generated through the elimination of other county-funded monitoring programs.*

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While we will be conducting further analysis of the proposed monitoring program changes, we submit the following issues for clarification at this time:

Given that Section 9.2.5.3 states that first flush concentrations are higher than or roughly equal to non-first flush data, it is not clear how discontinuing “intra-event” first flush sampling can be justified, since these higher pollutant concentrations would result in a higher potential for acute toxicity for aquatic organisms.

Section 9.2.5.3 recommends elimination of first flush sampling while expanding “Main Program” sampling. Yet it appears that there is also a recommendation to eliminate many of the “Main Program” sampling locations.

Response: (Proposed text is underlined) Section 9.2.5.3, Page 9-13, replace last paragraph with the following:

An extensive data set composed of “intra-event” first flush information has already been compiled. This existing information base can be used to adjust the design of control measures where prudent to control brief periods of elevated levels of pollutants during the early portions of runoff events. However, a principal goal of the proposed monitoring program is to provide a more accurate picture of “representative” runoff quality for use in loading calculations, management program planning, and other data analysis. For all such purposes, it is essential to have solid information on the typical range of “event mean concentrations” (EMCs) for the pollutants of interest. EMCs are normally measured directly by collecting and analyzing flow-proportioned composite samples for the full duration of representative runoff events (except for those constituents that are required to be sampled as grabs, for which a mid-storm grab sample is typically collected). “Representative runoff events” are those that cover the typical range of rainfall conditions – such as seasonal time of year (e.g., early, middle, and late wet season; often the cumulative rainfall total is used to delineate this parameter), antecedent dry days (this normally varies from zero to about 250, for the seasonal first flush event), rainfall intensity, and storm duration.

While the “intra-event” first flush information may have some uses, such data tend to misrepresent average pollutant concentrations and loadings when compared to representative EMCs.. Monitoring that measures EMCs during a representative range of rainfall events throughout the wet season generates information that can be used to accurately assess pollutant loadings, and has greater usefulness for management program planning.

8. **Comment:** *It is not clear why an upstream tunnel construction project should result in the elimination of the City Creek sampling site, since data from this*

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station should show the effectiveness of the BMPs the municipalities have required to be implemented to eliminate pollutant discharge from the construction site.

Response: (Proposed text is underlined) Section 9.4.3, Page 9-20, third bullet, fourth sub-bullet:

Eliminating the City Creek site due to complications arising from the influence of upstream tunnel construction. The City Creek monitoring site was established to provide water quality data for waters entering the urban area. The upstream construction activities defeated the intended purpose of this site; therefore, it is proposed that this site be discontinued. Continuing to monitor at this site is not appropriate as an *ad hoc* measure of BMP effectiveness, as BMP effectiveness is typically assessed using synoptic comparisons of upstream and downstream (or influent and effluent) quality, and such studies are likely to be scientifically valid only when specifically designed to assess pollutant removal effectiveness.

9. **Comment:** *Clear justification was not presented for the reduction of wet weather monitoring events from four to three.*

Response: (Proposed text is underlined) Section 9.4.3, Page 9-20, second bullet:

Reduce the number of wet weather monitoring events from four to three annually. The proposed reduction in monitoring frequency reflects both practical/logistical considerations and a reduced need for continued basic data-gathering. Because of the practical and logistical difficulties involved in tracking and monitoring stormwater events, particularly in arid and semi-arid areas (where predictable, area-wide precipitation is less common), the proposed reduction is intended to reduce demands on field crews and other resources, while increasing the likelihood that three representative events can be fully captured annually at all monitoring stations. This is coupled with the fact that extensive stormwater monitoring has already been conducted within San Bernardino and surrounding counties, producing a large database of basic information on runoff quality. It is no longer necessary to continue extensive monitoring for the purposes of basic characterization. Previous data analysis performed for the Sacramento municipal NPDES program (LWA, 1996) has indicated that long term effectiveness can be adequately gauged through continuing monitoring of three representative urban runoff sites at a rate of 1-3 storm events per year, over a 20 year period.

10. **Comment:** *The ‘sampling restrictions’ such as the 72-hour dry period, the two week inter-event period and others are intended to ensure that the few storm events analyzed each year provide meaningful pollutant loads. Removal of these restrictions could result in samples only being collected during ‘easily’*

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anticipated 2nd and 3rd storm events that may closely (1 day or less) follow the initial storm event that would contain higher pollutant loads.

Response: (Proposed text is underlined, Section 9.4.3., Page 9-20, first bullet:

Eliminate sampling restrictions related to the 72 hour dry period, the two week inter-event period, etc., as these restrictions are no longer mandated by EPA and unduly restrict monitoring logistics. The referenced sampling restrictions were imposed by EPA for initial collection of stormwater quality data when applying for an NPDES permit, to ensure some degree of comparability in the permit application discharge characterizations. The San Bernardino program is well past the initial characterization stage, and these restrictions now place an undue burden on the monitoring teams, as well as unduly restrict the characteristics of the runoff quality database. As discussed above, an accurate characterization of runoff quality requires monitoring throughout the representative range of rainfall/runoff conditions. This means that the database should include runoff events with both long antecedent dry periods (up to six months or so for the seasonal first flush event) and short antecedent dry periods (to characterize those relatively common runoff events as well). The inter-event scheduling also should cover events that are closely-spaced as well as those that are more distantly-spaced. These events can be accumulated over a span of several years to flesh out the range of conditions represented. The Permittees would keep track of the conditions covered and fill in the gaps as needed.

11. **Comment:** *Section 9.2.1 states that updated land use and drainage area maps have been prepared and are updated on a regular basis. The current version of these maps should be included in the report, at such a scale that sufficient detail exists to determine boundaries of these areas.*

Response: An updated land use and drainage area map will be included in the ROWD and updated annually, or as necessary. Permittees will receive updated maps as replacement pages to the ROWD. The maps will be at such a scale that sufficient detail will exist to determine boundaries of the land use and drainage areas.

12. **Comment:** *Finally, Appendix E presents data on mean annual loads for drainage areas within the County. First, there appears to be some formatting problems with the first page of data. Second, as previously mentioned, a map (or series of maps) needs to be provided in the report, identifying these drainage areas.*

Response: Appendix E formatting will be corrected. Updated maps will be included.

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Stormwater Permit (Order No. 96-32, NPDES No. CAS618036)

Thank you for this opportunity to respond to your comments on our application for renewal of the area-wide NPDES stormwater permit. Please feel free to contact me at (909) 387-8110 if you have any questions about our response to comments or have additional questions regarding our program. We look forward to review the pre-tentative draft of the permit as soon as it is available.

Sincerely,

A handwritten signature in black ink, appearing to read "Naresh P. Varma", with a horizontal line underneath.

Naresh P. Varma, P.E., Chief
Environmental Management Division

NPV:jm/RESPONSE-RWQCB.DOC

cc: NPDES Coordinators
KAM/PJ Reading File